



Green River Region Angler Newsletter



2014
Volume 9

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Fish Management in the Green River Region

Welcome to the eighth issue of the Green River Region Angler Newsletter. This year's edition features news regarding Legislative updates, new AIS regulations, ongoing burbot research and derby recaps, updates on native reptiles, a run down of regional stocking, habitat projects, and some tips for fly fishing the Green River.

The Green River Fisheries Region spans from Fontenelle Reservoir in the north to Flaming Gorge in the south, from the Bear River in the west to the Little Snake in the east, and includes all the lakes, reservoirs, rivers, and streams in between. Ours is the largest fisheries region in the state, and one of the most diverse! From trophy lake trout to native Colorado River cutthroat, smallmouth bass, kokanee salmon, tiger trout and more, Green River has a little something for everyone.

We manage aquatic resources for *you*, the people of Wyoming, so your input is very important and we appreciate your comments. Please feel free to contact us at 307-875-3223, or using the information provided on the last page of the newsletter. Happy fishing!

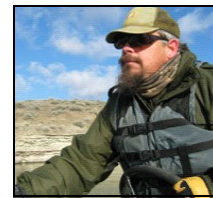
Shedding Light on Legal Lighting Devices

This last legislative cycle, the WGFD Commission was granted permission to make regulations changes regarding legal use of lighted fishing devices. Stay tuned for expanded future opportunities to use light. For now, however, nothing has changed. Some legal lighted devices include:

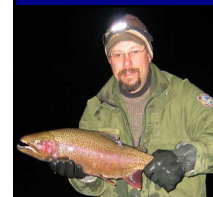
- Worms, baits and tackle chemically enhanced to produce light (this includes

glow jigs)

- Lighted strike indicators or bobbers
- Lighted pole or rod tip



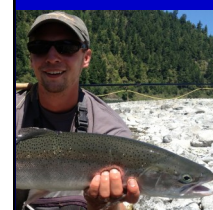
Robb Keith
Fisheries Supervisor



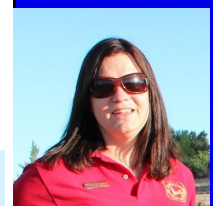
Kevin Spence
Aquatic Habitat Biologist



Anna Senecal
Fisheries Biologist



Joe Skorupski
Fisheries Biologist



Regina Dickson
Green River AIS Supervisor



Wes Gordon
Evanston AIS supervisor

Lotic Lota Iota

Burbot *Lota lota* are best described as a cross between an eel and a catfish. Their large head with a single whisker, called a barbel, tapers to an elongated body. They stay near the bottom, are most active at night, and seem to eat anything that gets in their way. In the United States, Burbot are most common at northern latitude rivers and lakes with cool average temperatures. Not surprising, Burbot call the Wind-Bighorn River drainage of Wyoming home. We know a little bit about Burbot in standing or “lentic” waters, but more information is needed on burbot in flowing or “lotic” waters.

Although Burbot are native to the Wind-Bighorn River drainage, they were illegally introduced to the Green River drainage in the 1990s where populations have continued to expand. The effect of Burbot on native fishes and trout fisheries in the Green River and its reservoirs is a major concern for Wyoming biolo-

gist and citizen alike. Concerns of non-native Burbot spurred fisheries biologist from the Pinedale and Green River offices of Wyoming Game and Fish to seek funding for research on Burbot. Luckily their project was funded, and a Master’s student, Zach Klein, from the Idaho Cooperative Fish and Wildlife Research Unit at the University of Idaho was charged with the task of evaluating the ins and outs of Burbot in the Green River.

In an effort to help Wyoming Game and Fish suppress Burbot in the Green River, Zach devised three major questions he sought to answer. First, what is the most effective technique for catching Burbot? Second, what areas are Burbot most likely to be found? Third, what are Burbot eating? Essentially, Zach spends each day floating the river setting

perform this series of stunts at every one of his 41 collection location three times.

Zach will be the first to admit that it takes a lot of work, “Sampling requires a lot of effort, but I think the information we are gathering will really benefit the fishery”.

Back in Idaho, Zach will dissect the Burbot he collected and remove their stomach, ear stones (otoliths),

and ovaries. He plans to use the samples he collects to estimate the ages of Burbot, evaluate their diet, and estimate their reproductive capabilities. He’ll take all the habitat data he collected and relate what he found to Burbot occurrence. Finally, he’ll use the information he collected from different fishing techniques to figure out which method is the most effective for catching Burbot. Zach hopes that his project will provide Wyoming Game and Fish with the necessary information needed to target Burbot where they occur, using the most effective collection technique.

Zach and Darren Rhea, Pinedale Fisheries Biologist, pull hoop nets on the Green.



Zach devised three major questions: 1) what is the best way to catch burbot? 2) where are they most likely to be found? And 3) what do they eat?

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two sizes of nets and collecting information on habitat characteristics. During the night of every third day, he and a technician float the river and use electricity to collect Burbot. Because of the technique he is using to analyze these data, he must

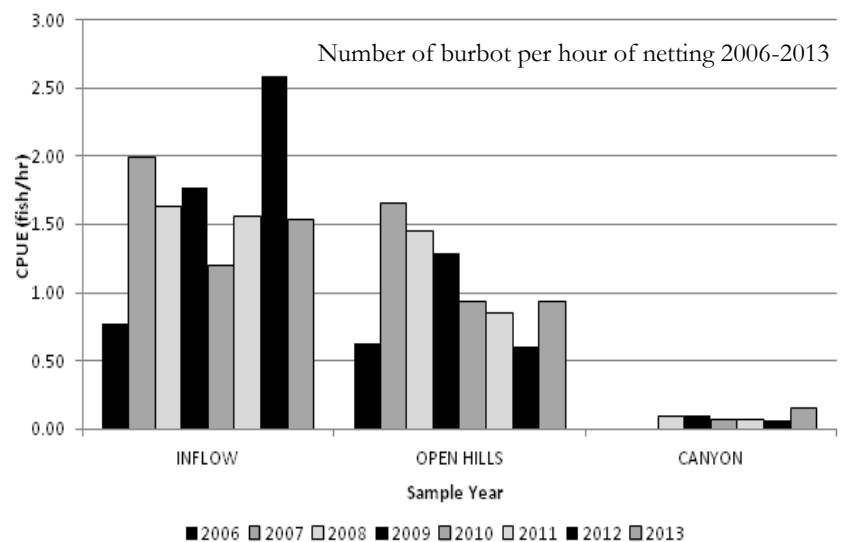
The war on Burbot: are we really making a dent?

As the Wyoming Game and Fish Department (WGFD) Green River regional fisheries supervisor I regularly get asked - Are the burbot derbies helping to control burbot numbers in Flaming Gorge Reservoir? The answer is yes.

- Burbot derbies have an immediate benefit – since 2010 over 30,889 pounds of burbot have been removed during derbies, which equates to approximately 23,385 burbot.
- Derbies represent free and wide spread publicity attracting anglers to Flaming Gorge Reservoir to help exploit the burbot fishery. The Green River fish crew has interacted with participants from across the country – UT, ID, CO, AZ, WA, CA, NV, ND, MD, TX and of course WY.
- People often return to Flaming Gorge to fish for burbot after their initial experience.
- Burbot derbies have helped define and highlight the burbot problem in Flaming Gorge Reservoir. The result has been updated statute and regulations that have allowed the WGFD to take positive steps to reduce the burbot population. In 2013 burbot were reclassified as non-game fish west of the continental divide. This action allowed the WGFD to continue promoting unlimited harvest and reestablish the must kill regulation on burbot. More recently the Legislature gave the WGFC the authority to liberal-

ize the use of artificial light while fishing. We will be seeking public and Commission approval for a new regulation to begin in 2015 that would allow the use of artificial light to target burbot and other fish.

- Professional and novice angler catch rates alike have declined over the past few years. Catch rates for derby contestants have declined as well.
- WGFD netting data supports observations that angling pressure (including derbies) is helping reduce the number of burbot in Flaming Gorge Reservoir. Following a 2007 high, catch rates have generally declined (see Figure below). Without angler harvest, I would expect current catch rates to be much higher and possibly still increasing.



Burbot wars cont'd

Since 2010, Flaming Gorge derby participants have removed more than 23,000 burbot from the reservoir. In 2014 alone, 2,018 burbot were removed during the inaugural Burbot Classic, and 4,039 during the Burbot Bash.

Flaming Gorge guide, Ashley Bonzer preparing to fish at Firehole.

The Seasons of the Fly on the Green River below Fontenelle

Spring:

Look for water temperatures in the lower 40's. The trout are on the feed after the long winter. Try to find shallow riffles that have shelf-like drop-offs to deep runs with "nervous" looking water moving at a walking pace. The fish are piled up behind these shelves in the spring. Nymph or throw a streamer. Getting your flies near the bottom is important this time of year, so use sink tip line when throwing a streamers and heavy flies or shot when nymphing. Dark (olive, brown or black) cone-head or bead-head woolybuggers on the dead drift or swing work best when streamer fishing. Always have a San Juan worm on when nymphing in the spring and use a brown girdle bug, or stone fly imitation for weight.

Summer:

Watch for high water tempera-

tures in the summer on this part of the Green River, catch and release fishing should be avoided when water temperatures exceed 65°F. Many fish will not survive after being caught at these temperatures.



A wild, Green River brown trout

Often fish will swim off and appear fine but later die. On low to normal water years, this reach of the Green River will see these high temperatures at the peak of summer, restricting your fishing to early mornings, late evenings or not at all.

In early summer, when water temperatures are in the upper 50's, fishing on the Green River can be at its best.

Stealthy fisherman can have great dry fly fishing on this reach. There are large hatches of caddis, trico's and yellow sally's. Don't be afraid to try large foam hoppers or cicadas. Look for fish in shallow riffles or off of rock barbs.

Nymphing with a San Juan worm and soft hackles or girdle bugs will also produce. Streamer fishing in low light conditions with small leaches and dark woolybuggers can produce in riffles and around submerged boulders.

Fall:

This is the best time of year to be on this stretch of Green River. Kokanee from Flaming Gorge are on their spawning migration out of the lake and large trout key on the redds (nest like depressions in the stream bottom where kokanee lay their eggs). Nymphing with egg patterns and San Juan worms will produce in runs downstream of kokanee redds. Swinging brightly colored salmon patterns over the kokanee is effective at catching kokanee. Be aware of where you are walking in the river this time of year since walking on kokanee redds will smash recently deposited eggs.

Winter:

Most of the river freezes over in the winter and only the upper stretch will be open to fish this time of year. Stick to nymphing slow deep pools and runs. Use San Juan worms, small baetis and midges with split shot.

Good luck and tight lines!

On the Ground with "WY Landscape Conservation Initiative"



While the critters we manage for tend to consume the spotlight, conservation of habitat is an important part of the Game and Fish mission.

Fish Passage Continued

Bitter Creek

Work is underway to replace a failing water diversion structure, control invasive plant species and reestablish native vegetation. When completed, this project will restore native riparian communities and protect sensitive, native non-game fish species located in the headwaters of the drainage.

Native riparian vegetation, such as willows, cottonwood, and buffalo berry provides bank stability through extensive root networks; traps and removes sediment from floodwaters (increasing water quality); and provides cover and forage for wildlife including fish, mammals and songbirds.

"The Wyoming Landscape Conservation Initiative (WLCI) is a diverse collaboration of agency personnel and landowners with a common goal to improve terrestrial and aquatic habitats for wildlife" explains WLCI coordinator Jim Wasseen. "This year the WLCI provided \$316,500 in funding for 10 projects that have benefited fisheries within southwest Wyoming. Five of these projects took place within the Green River Region. Of these five, three were stream improvements and two were fish passage projects."

Stream Improvement

• Muddy Creek (Little Snake River Drainage)

13 culverts were installed along a two mile section of road, reducing sediment inputs to the creek and benefitting native Colorado River cutthroat trout.

• Green River Russian olive and Tamarisk removal project

WGFD, with the city and local high school classes monitored several sites for re-growth of previously-treated areas.

• Blacks Fork Russian olive and Tamarisk removal project

31 acres were treated to remove invasive plant species, and an additional 204 acres of stream bank were surveyed for future treatments. Blacks Fork Tamarisk pictured above.



Fish Passage

• Goose Berry Creek

Nine hundred feet of stream were enhanced using large rock and logs to create series of small drops with large pools. These improvements enable fish to move upstream, while also improving riparian habitat. This project reconnected 1.5 miles of Colorado River cutthroat trout habitat. Photos before (right upper) and after (right bottom) .

The Battle at the Borders: Fighting to keep AIS out of Wyoming

A recent change to the Aquatic Invasive Species (AIS) law requires that all watercraft (*including canoes, kayaks, drift boats, and personal watercraft such as jet skis*) transported into the state be inspected before launching on any Wyoming waters. The law also requires that any boat coming from a water infested with zebra or quagga mussels be inspected before launching on any Wyoming water year round. As a result, Wyoming's AIS program underwent changes aimed at intercepting AIS at state borders as boats entered the state. The goal of border check stations is to increase the number of non-resident boaters contacted and to detect AIS on boats prior to launching in Wyoming. The program was successful in doing just that, with 14 boats found to have invasive mussels on them—over three times as many as in 2012. Each of these boats was decontaminated before being allowed to launch or to continue travel through the state.

Overall, a greater number of high risk boats were inspected and decontaminated in 2013. Inspections of nonresident boats increased statewide to 61% of all inspections, up from 25% in past years.

Regionally, inspectors kept busy with nearly 13,000 boat inspections this season. Of



those, 412 were high risk inspections which led to 214 decontaminations, most of which were performed as motor flushes on boats which had last boated in an infested state or on infested waters.

If you haven't heard the news yet, invasive mussels were detected in Lake Powell, UT/AZ. This is of special concern as it is a common destination for boaters who also frequent Flaming Gorge Reservoir and other Wyoming waters. If you boat at Lake Powell, your boat, kayak or personal watercraft must be inspected before you can legally launch on any Wyoming water. Inspections may be

scheduled by contacting any regional Game and Fish office.

Monitoring for AIS is an ongoing part of the program. Wyoming waters are tested each year for the presence of invasive mussels and other invasive species. Thus far there has been no indication of the presence of zebra or quagga mussels in Wyoming waters. You can help keep it that way by always remembering to Drain, Clean, Dry your watercraft and gear after boating—even if you are returning to the same water or only boat in Wyoming. Also be sure if you boat at Lake Powell, Lake Mead, or any other infested water, that you have your boat inspected before boating in Wyoming.

The program's main focus continues to be encouraging all boaters and anglers to Drain, Clean and Dry their boats and other equipment in order to prevent further spread of AIS.

Members of the public may become certified inspectors by completing a free AIS training course and successfully completing an exam. Certification is good for one year. Trainings will be offered May 6 from 9am-4pm in Green River and May 7 from 9am-4pm in Evanston. Phone the regional office 307-875-3223 for additional details.

Photo: Regina Dickson, Green River AIS Crew Leader surveys Flaming Gorge for larval mussels



Zebra mussel



Quagga mussel

Fish Stocking

Considerable effort, including time and money, go into growing fish to be stocked into waters for anglers to catch and enjoy. Stocking takes place primarily in standing waters (lakes and reservoirs), with some exceptions (the Green River is an example of a flowing water that is stocked). Waters throughout the region are stocked based on productivity (how much fish food they grow), sustainability of wild fisheries, public use, management strategy and a variety of other factors. Below are a few of the region's more popular stocked fisheries.

Water name	Species stocked	Total number stocked 2014
Big Sandy Reservoir	brown trout	23,000
Flaming Gorge Reservoir	rainbow trout, kokanee	905,000
Fontenelle Reservoir	rainbow, cutthroat trout, kokanee	141,000
Green River	rainbow, cutthroat trout	44,000
High Savery Reservoir	Colorado River cutthroat, tiger trout, kokanee	30,000
Jim Bridger Pond	cutthroat, tiger trout	28,000
Naughton Power Plant	tiger trout	3,000
Sulphur Creek Reservoir	rainbow, cutthroat trout	60,000
Viva Naughton Reservoir	rainbow, tiger trout	70,000
Woodruff Reservoir	tiger trout	10,000

Salmon Pasta

Ingredients:

- 1 TBSP fennel seeds
- ¼ cup minced fresh parsley
- 1 TBSP light-brown sugar
- Salt and pepper
- 1 lb salmon fillet with skin (about 1 inch thick)
- 1 lb corkscrew or other short pasta
- 10 oz. spinach, stems trimmed and leaves washed well
- ½ cup sour cream
- 2-3 TBSP fresh lemon juice

Directions:

Heat broiler. Put fennel seeds in a small plastic bag and crush with rolling pin. Add parsley, sugar, ¾ tsp salt, and 1 tsp pepper to bag, shake to mix. Press mixture onto skinless side of salmon. Broil salmon, skin side down, until it is no longer red in center, about 8 minutes. Flake flesh with fork. Cook pasta until al dente, about 13 minutes. Drain pasta and reserve ½ cup cooking water, set aside. Mix together sour cream, lemon juice to taste, ½ tsp salt and 2 TBSP pasta water. Toss pasta with spinach, sour cream mixture, salmon and water as needed. Serve and enjoy!

(Recipe from Martha Stewart)

Photo: Mark Fowden and son Ian display a Fontenelle Reservoir– caught kokanee salmon



Desert Dwellers

The Desert Striped Whipsnake can be described by its name. It is a long slender dark snake with

snake. After surveying for two weeks, one Desert Striped Whipsnake was discovered

sert Striped Whipsnake an official native of Wyoming.

The WGFD is responsible for managing all Wyoming wildlife, including amphibians and reptiles. However, it is hard to properly manage for amphibians and reptiles because little is known about most of them in the state. It is important that the WGFD conducts surveys in order to determine population health, geographic range, and to ensure we maintain all amphibian and reptile species for future generations. The Department employs one permanent herpetologist, Zack Walker, who coordinates most amphibian and

Other unique species include the Northern Tree Lizard, Great Basin Gophersnake, and Midget Faded Rattlesnake. The habitat around Flaming Gorge Reservoir represents the last reach of many species that are found throughout the southern deserts. In addition to the four species mentioned previously, there are an additional six species that could be waiting to be discovered around Flaming Gorge. All are present just over the Utah border, but have not yet been documented in the state. If you keep your eyes open, you never know what you might find.



Desert Striped Whipsnake

light stripes that travel from its head to its tail. As its name implies, their general appearance resembles a whip, and they are as fast as one too. They can reach up to 6 feet in length and are found in arid scrublands, rocky slopes, and stream bottoms. Desert Striped Whipsnakes are known to occur in Utah, but in 2010, two whipsnakes were officially documented in Wyoming on the east side of Flaming Gorge Reservoir. As of 2010, only four whipsnakes had ever been reported from Wyoming. All observed whipsnakes were seen in the same general area, near the Utah border. In 2013, WGFD herpetologists went looking for this species to see if any additional information could be gathered for this elusive

near the Utah border and to the east of Flaming Gorge Reservoir. The snake was found about 4 miles from previous locations.

This observation was especially exciting because the observed snake was young. Because juvenile snakes usually don't travel as far as adults, it is assumed that there is a breeding and overwintering population of whipsnake in Wyoming. We should now consider the De-



Great Basin Gophersnake

reptile work across Wyoming.

The area around Flaming Gorge has always been well known for its unique reptiles. The Desert Striped Whipsnake is the newest of four native species not found anywhere else in Wyoming.

In addition to the four species mentioned previously, there are an additional six species that could be waiting to be discovered around Flaming Gorge.



Midget Faded Rattlesnake

Meet Your new Green River Fisheries Biologist: Joe Skorupski

Joe is native to Pennsylvania, where he earned his Undergraduate degree in fisheries biology. During this period, he worked summer positions in Oregon, Idaho and Yellowstone National Park where he later conducted his masters degree research. After completing his masters degree in 2011, Joe began his career as a Fisheries Biologist in Vernal, Utah where he and his wife Erin resided prior to moving to Green River. Joe is an avid outdoorsman who enjoys fly fishing, elk hunting and will chase just about anything that will fly with his bird dog Grayling.



Dates to Remember

Free Fishing Day June 7-- The Wyoming Game and Fish Commission has declared June 7, 2014 Free Fishing Day to coincide with the beginning of the National Fishing and Boating week. Residents and nonresidents may fish Wyoming waters (excluding Wind River Indian Reservation and Yellowstone National Park, which are not regulated by the State of Wyoming) without a fishing license or conservation stamp.

Kemmerer Kids Fishing Day June 7 – Located at the Kemmerer Community Pond by the overpass. Sponsored by the City of Kemmerer.

Evanston Kids Fishing Day June 14 – Located at the UP Ice Ponds, Registration starts at 7:45, Fishing from 8 am to 1 pm. Sponsored by Upper Bear River TU Chapter.

Rock Springs Kids Fishing Day June 14 – Located at the Rock Springs Pond - south side of the road leading into the Rock Springs Golf Course. Event 9 am to 3 pm. Sponsored by Seedskaadee TU Chapter.



Wyoming Game and Fish Department Conserving Wildlife - Serving People

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Fish Division Mission Statement:

"As stewards of Wyoming's aquatic resources, we are committed to conservation and enhancement of all aquatic wildlife and their habitats for future generations through scientific resource management and informed public participation. We will use an integrated program of protection, regulation, propagation, restoration and control to provide diverse, quality fisheries resources and angling opportunities. Our efforts will balance the productive capability of habitats with public desires."

We're on the web!
[HTTP://WGFD.WYO.GOV](http://WGFD.WYO.GOV)

